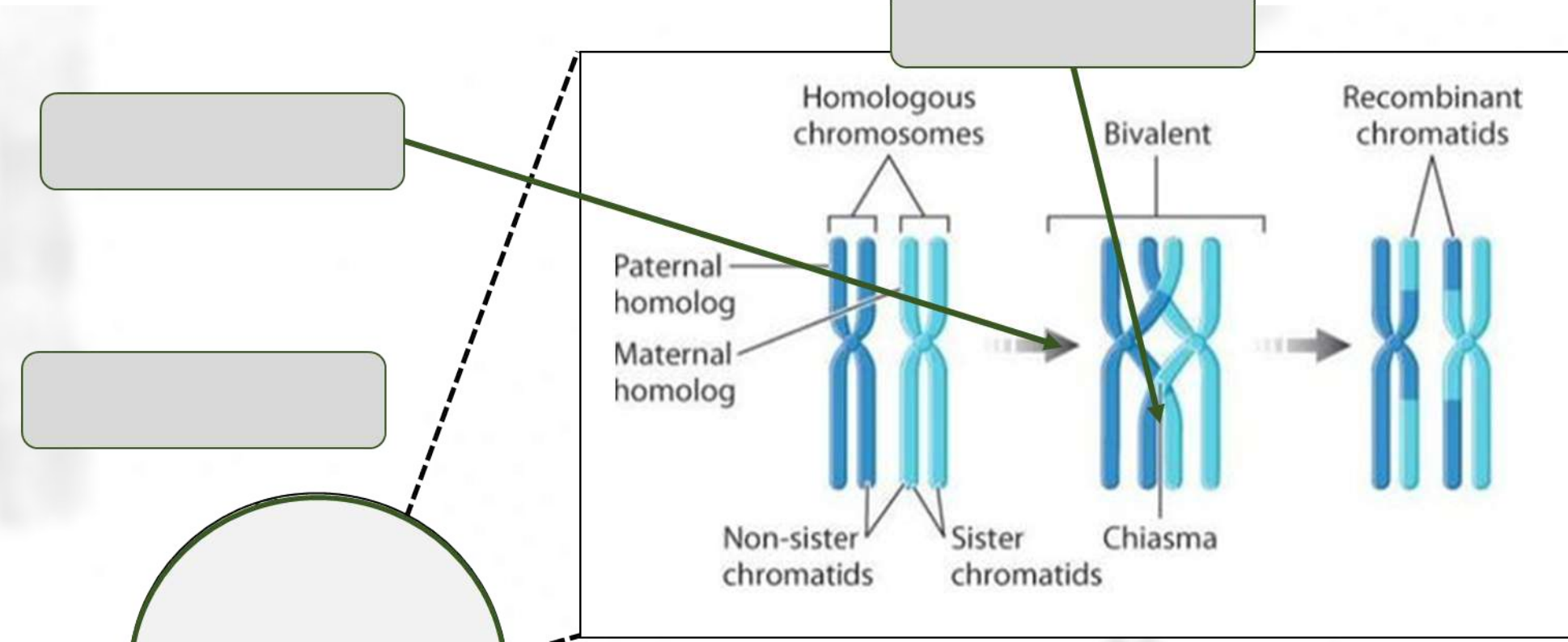
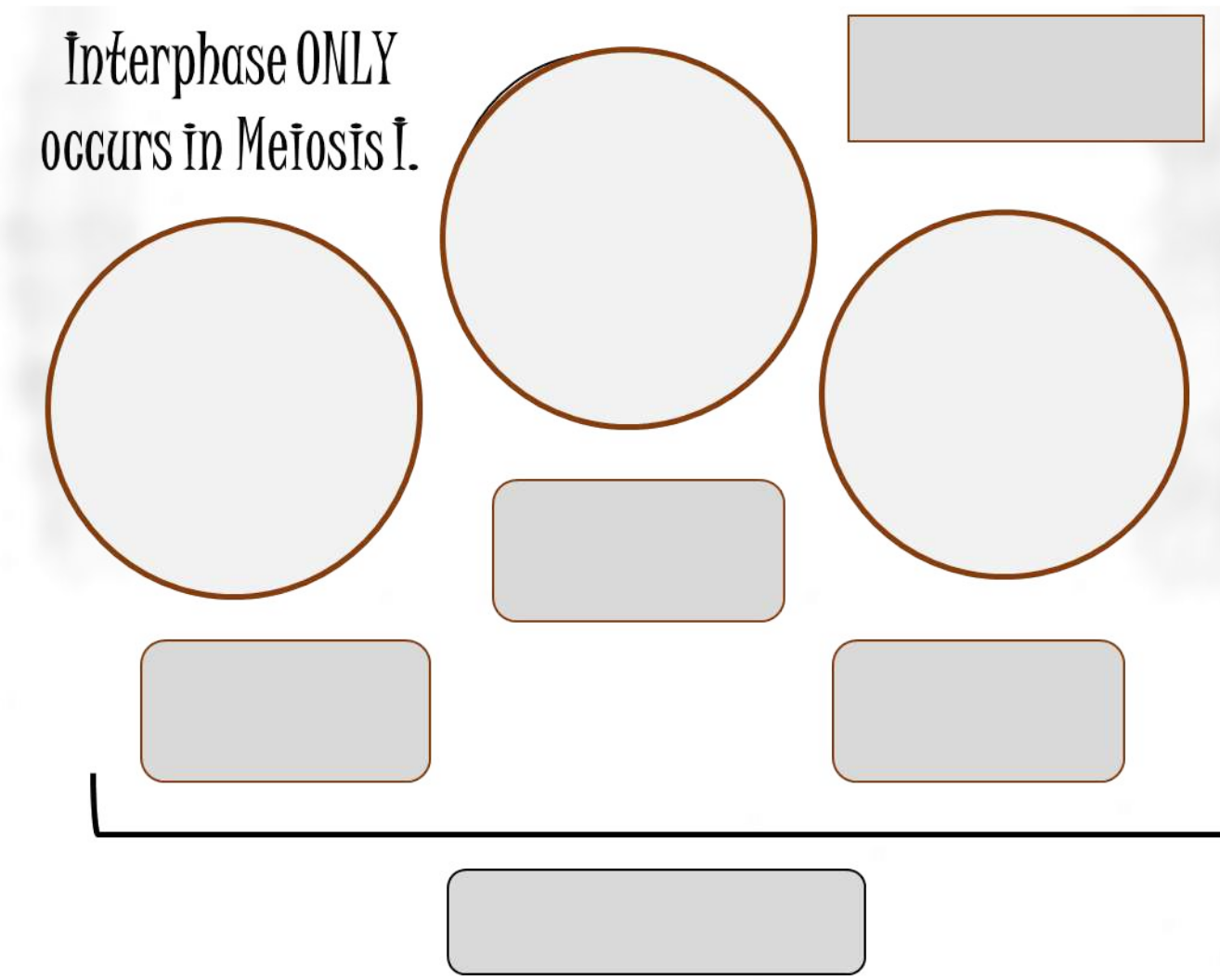
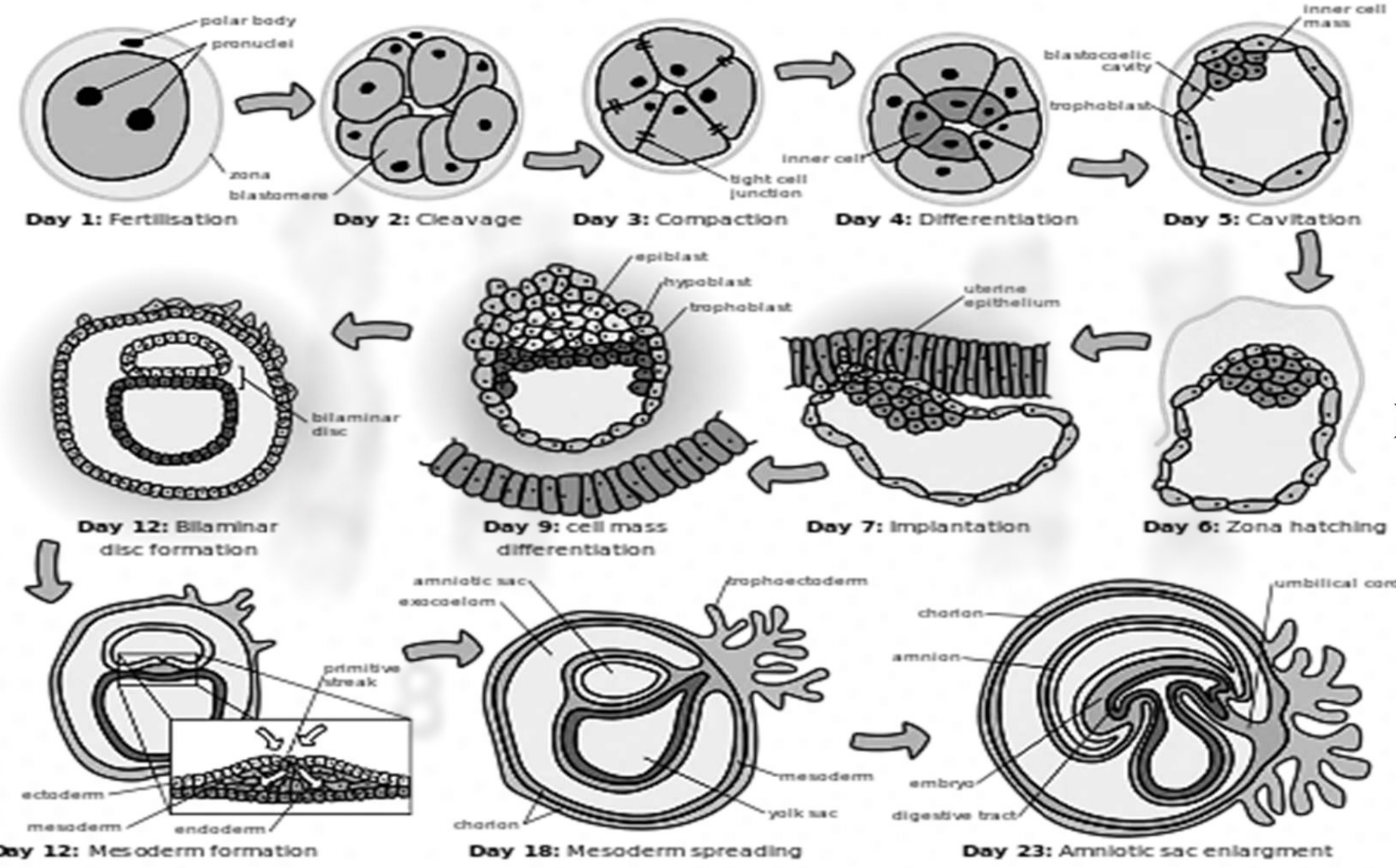


# Meiosis

Interphase ONLY  
occurs in Meiosis I.

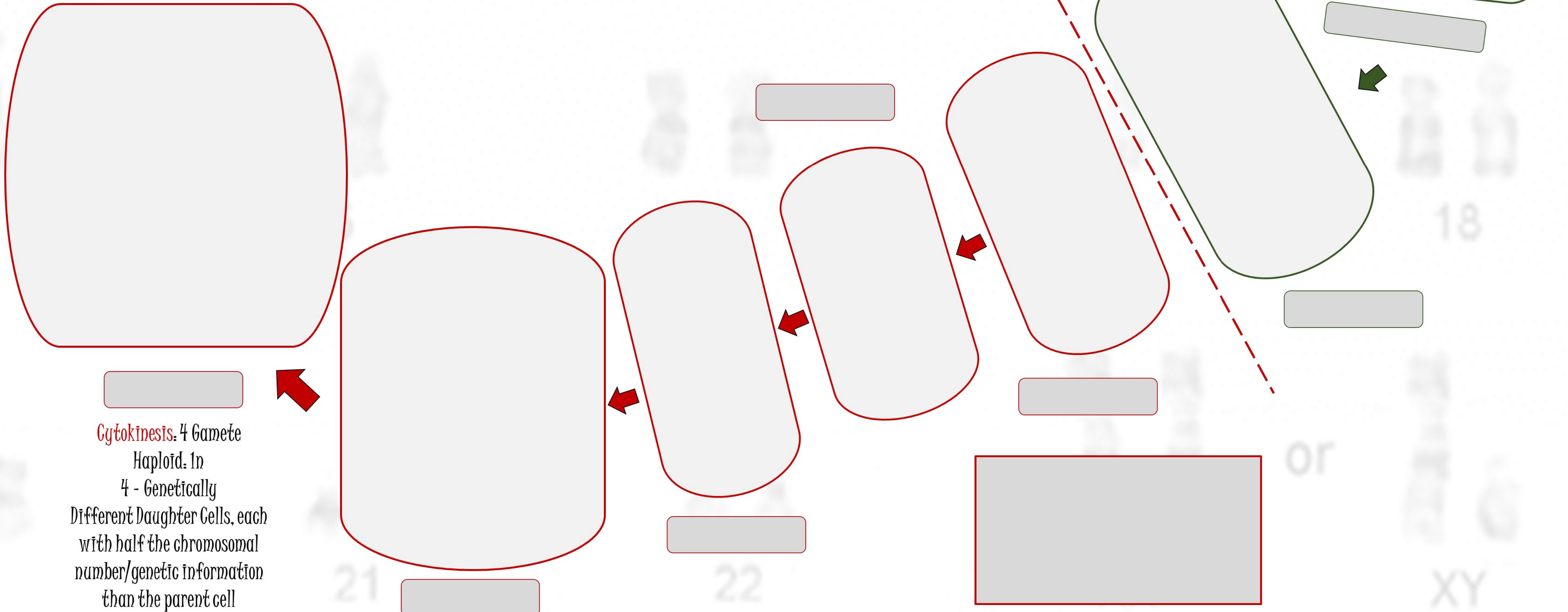


Independent Assortment &  
Crossing over increases Genetic  
Variation



Embryonic Development

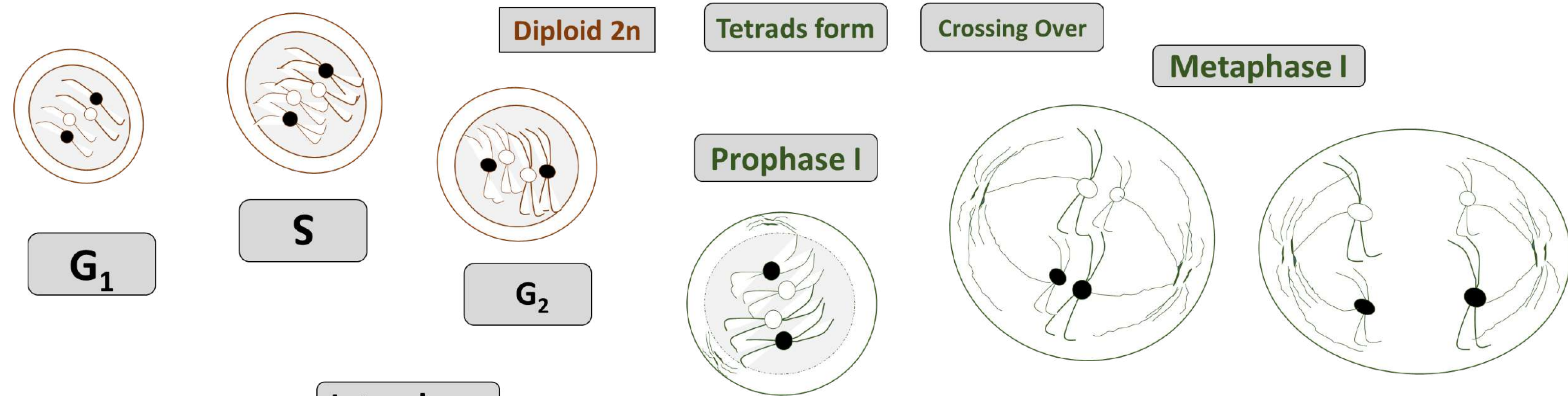
All phases are similar  
in mechanics to  
phases in Mitosis



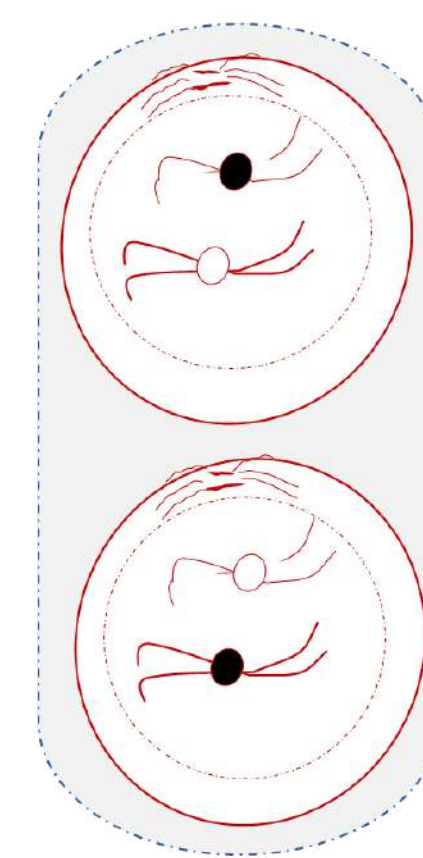
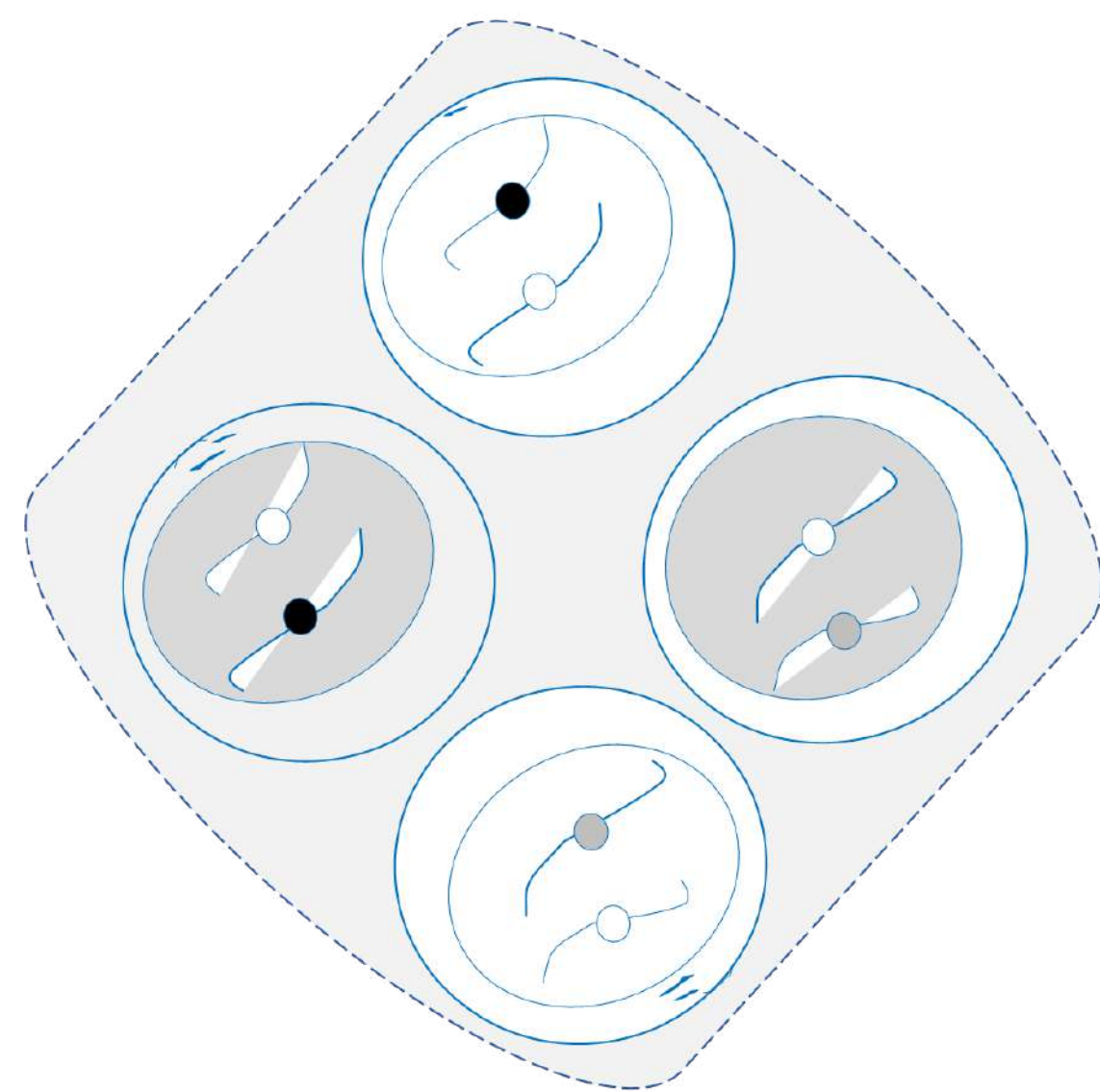
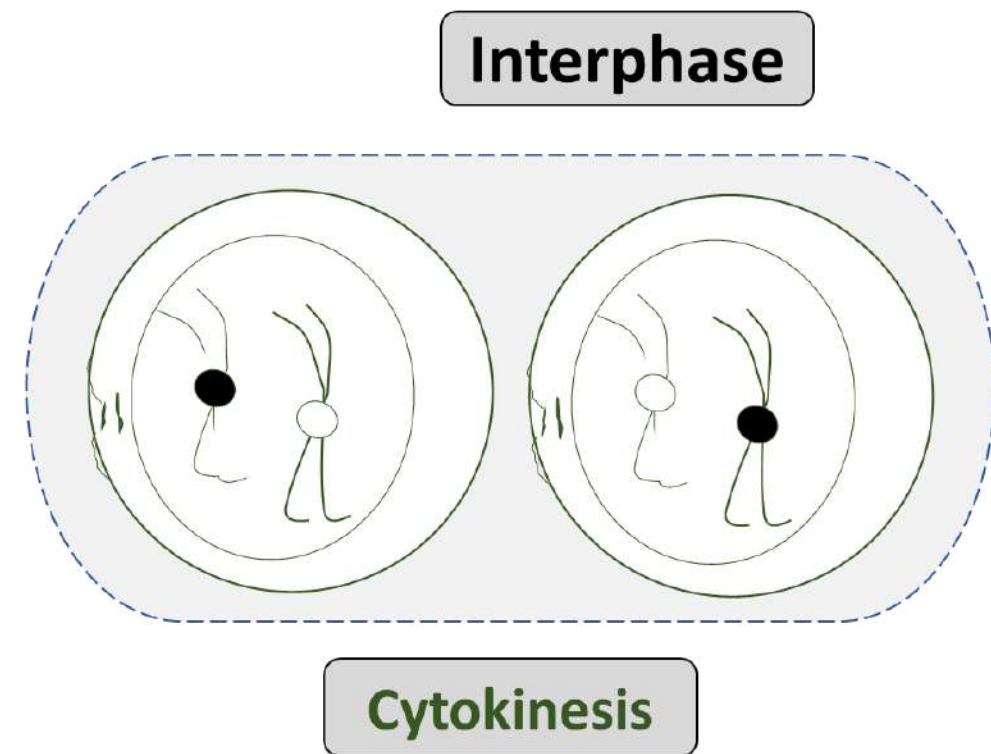
Cytokinesis: 4 Gamete  
Haploid: 1n  
4 - Genetically  
Different Daughter Cells, each  
with half the chromosomal  
number/genetic information  
than the parent cell

- What:** Meiosis is a special type of cell division that reduces the chromosome number by half, creating four haploid cells, each genetically distinct from the parent cell that gave rise to them. This process occurs in all sexually reproducing single-celled and multicellular eukaryotes, including animals, plants, and fungi.
- Why:** Meiosis is one form of cell division, whereby four unique haploid cells are produced from one diploid parent cell... If meiosis had not occurred, the zygote (fertilized egg cell) would have twice as many chromosomes than it needs. Therefore meiosis occurs so that sexual reproduction can happen.
- When:** In humans, meiosis is the process by which sperm cells and egg cells are produced. In the male, meiosis takes place after puberty. Diploid cells within the testes undergo meiosis to produce haploid sperm cells with 23 chromosomes. A single diploid cell yields four haploid sperm cells through meiosis.
- Type of Cells:** Meiosis is a process where a single cell divides twice to produce four cells containing half the original amount of genetic information. These cells are our sex cells - sperm in males, eggs in females... Meiosis produces our sex cells or gametes (eggs in females and sperm in males).





# Meiosis I

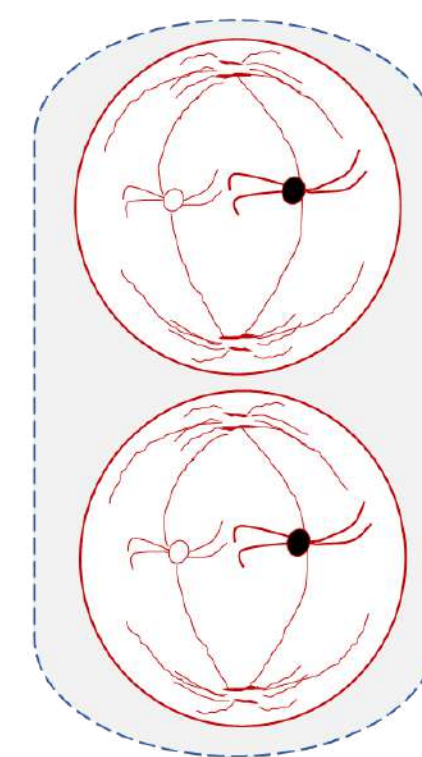


Prophase II

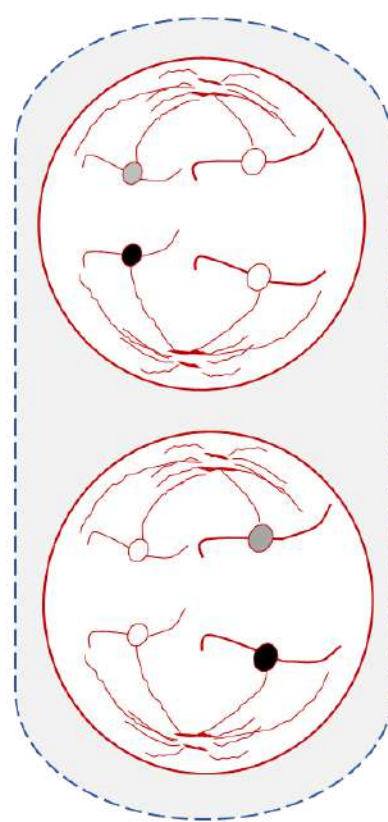
# Meiosis II

Reduction division

Metaphase II



Anaphase II



Telophase II

